

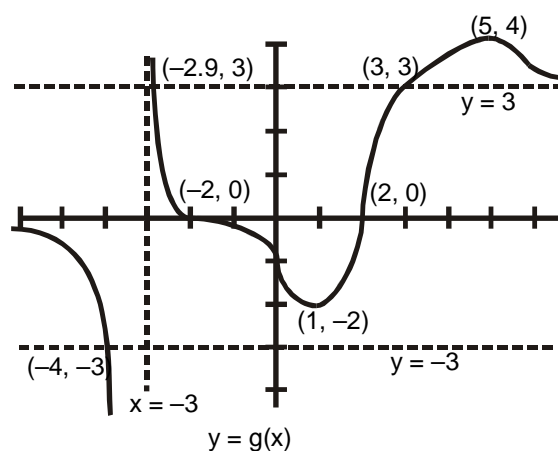
## Quiz 4 (show work on separate page if needed)

1) Let  $R(x) = \frac{2x-1}{x-2}$ .  
Find  $R(x-1)$

2) Compute  $\frac{f(x+h)-f(x)}{h}$   
when  $f(x) = x^2$

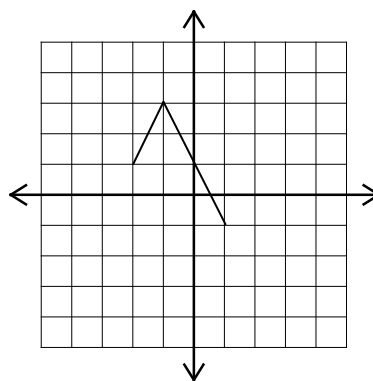
3) For the graph of  $g(x)$  at right:

- What is the domain?
- What is the range?
- What is  $g(0)$ ?
- For what values of  $x$  is  $g(x)=0$ ?
- As  $x \rightarrow -\infty$  what does  $g \rightarrow$ ?
- As  $x \rightarrow +\infty$  what does  $g \rightarrow$ ?
- As  $x \rightarrow -3$  what does  $g \rightarrow$ ?

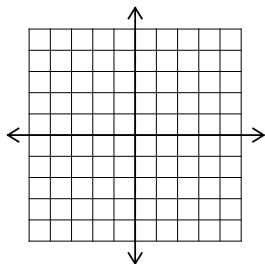


4) Given the graph of  $f(x)$  at right graph:

$$y = 2f\left(\frac{1}{3}x - 1\right) - 1$$



5) Graph:  $y = 3(x+1)^3 - 2$



6) Graph:  $y = 2(x+2)^2 + 2$

